What is claimed is:

1. A system for land based cultivation of seaweeds, said system comprising:

- laboratory facilities suitable to produce spores and sporlings in cultures,
- a plurality of sleeves to allow the maturation of the sporlings,
- a plurality of small inoculation tanks containing seawater enriched with nutrients under optimal conditions, to allow the mature sporlings to grow into seaweed pieces, and
- a plurality of large cultivation tanks to transfer the seaweed pieces into , to grow to full size.

2. A novel technology for cultivation of seaweeds on land, said technology comprising a plurality of land based seawater ponds, designed to contain seawater enriched with nutrients, and said ponds maintained under optimal conditions of temperature, light and air to allow optimal growth of seaweeds throughout the year.

3. The system according to claim 1 wherein the seaweed species grown in land based seawater ponds include *Porphyra (Nori), Laminaria, Undaria, Eucheuma, Gracillaria, Ulva, Sargassum, Codium, Cladophora, Ascophyllum, Palmaria, Furcellaria, Fucus or Enteromorpha.*

4. The system according to claim 3 wherein the nutrients added to the seawater are designed to produce seaweeds that are used as neutraceuticals, food components, pharmaceutics or cosmetics.

5. The system according to claim 1, wherein the cultivation cycle for the seaweeds comprises:

-production of spores and sporlings

-stage 1 growth in small tanks

-stage 2 growth in large tanks

-stage 3 growth in inoculation ponds, and

-stage 4 growth in cultivation ponds.

6. The system according to claim 5, wherein each of the different stages of growth of seaweeds in land based seawater ponds is programmable to occur throughout the year.
7. A method of cultivating seaweeds in land based sea water ponds, said method comprising the steps of:

-producing spores and sporlings in cultures maintained in a laboratory facility,

-growing the sporlings in suspension cultures under optimal growth conditions,

-transferring the matured sporlings to large cultivation tanks to allow for rapid growth,

-harvesting the full grown seaweed pieces

-drying and grinding the harvested seaweeds, and

preparing the resulting seaweed product for human consumption.

8. The method according to claim 7, wherein the large cultivation tanks contain suitable nutrients to ensure high yields of seaweed products having useful properties
9. The method according to claim 8 wherein the method to produce a seaweed product is adapted to produce a product suitable for pharmaceutical use.
10. The method according to claim 8 wherein the method to produce a seaweed product is adapted to produce a product that is useful as a food component.